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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/613,913	07/03/2003	Alastair M. Reed	P0851	4658

23735 7590 04/04/2005

DIGIMARC CORPORATION  
9405 SW GEMINI DRIVE  
BEAVERTON, OR 97008

EXAMINER
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DESIRE, GREGORY M

ART UNIT	PAPER NUMBER
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2625

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/613,913	<b>Applicant(s)</b> REED ET AL.	
	<b>Examiner</b> Gregory M. Desire	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 July 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.  
4a) Of the above claim(s) 1-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 1-5, drawn to color masking, classified in class 358, subclass 517.
- II. Claims 6-10, drawn to control strength of a watermark, classified in class 382, subclass 100.
- III. Claims 11-18, drawn to encoding into a transform domain, classified in class 382, subclass 280.

The inventions are distinct, each from the other because of the following reasons:

2. ° Inventions I, II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, inventions I, II and III has separate utility such as color masking, watermark encoding and color transformation, respectively. See MPEP § 806.05(d).

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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4. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Groups II and III, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Steven Stewart on 3/28/05 a provisional election was made without traverse to prosecute the invention of group III, claims 11-18. Affirmation of this election must be made by applicant in replying to this Office action. Claims 1-10 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liao et al (6,788,801) in view of Dyas et al ((6,504,494).

Regarding claim 11 Liao discloses,

Determining a color characteristic for a group of image samples (note col. 3 lines 47-49 and 50, input image including pixels (group of image samples), the input image being a color image has color characteristics that are determined);

Transforming from the group of image samples at least one determined color channel that should receive encoding into a transform domain (note col. 3 lines 51-53 and 55-56, original image which includes pixels group of image samples receive into wavelet transform the transform domain); and

Altering transform domain coefficient of the at least one determined color channel to encode the digital watermark (note fig. 2a, block 215 in connection with col. 3 lines 59-61, wavelet modulator modifies transform domain coefficient). However, Liao does not disclose determining which plurality of color channels should receive encoding. Dyas discloses selecting green color channel because luminance depend on green light intensity (note col. 3 lines 19-35). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to select a color channel for encoding in the system of Liao. Luminance dependency would have been a highly desirable feature in the color masking art due to light intensity functions and Dyas recognizes that luminance dependency would be expected when the selection of color channel in Dyas is included in Liao.

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Regarding method claim 12 Liao and Dyas discloses,

Transforming the altered color channel into a spatial domain (note Liao fig. 2a block 220, inverse wavelet transform performs, transforming altered color channel into a spatial domain).

Regarding method claim 13 Liao and Dyas discloses,

Where the characteristic identifies which of the color channels will best hide the digital watermark in terms of visibility (note Dyas col. 3 lines 19-35, luminance characteristic identifies green color channel).

9. Claims 14-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Sun et al (5,818,032) in view of Takada et al (6,77,931).

Regarding method claim 14 Sun discloses,

Providing a set of encoding values for an image sample (note fig 1., binary data examiner interprets as encoding values of the rendered image (image sample)).

Determining a color characteristic (fig. 1 categorizes yellow) for the image sample (rendered image) based on its color value (provides pixel value examiner interprets as color value)

However, Sun does not disclose selectively scaling in the image sample based on the color characteristic. Takada discloses from selected color

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changing (scaling) the color based on depth of color (color characteristic) (note col. 2 lines 32-40). Therefore it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to included selective scaling image sample based on color characteristic.

Improved visibility would have been highly desirable feature in the color masking art due it luminance functions and Takada recognizes that improved visibility would be expected when selectively scaling image samples based on the color characteristic of Takada is included in Sun.

Regarding method claim 15 Sun and Takada discloses,

Wherein scaling effects a change in luminance (note Sun, fig. 2)

Regarding method claim 16 Sun and Takada discloses,

Wherein the scaling comprises a scale to black (note Takada fig. 5, yellow goes to black).

Regarding method claim 17 Sun and Takada discloses,

Wherein the scaling comprises a scale to white (note Takada fig. 5, yellow goes to black to white).

Regarding method claim 18 Sun and Takada discloses,

Wherein the color characteristic comprises yellow content (note Sun fig. 1, 16, yellow value).

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### ***Conclusion***

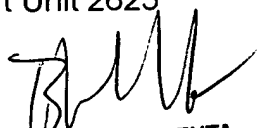
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory M. Desire whose telephone number is (703) 308-9586. The examiner can normally be reached on M-F (8:30-6:00) Second Monday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (703) 308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

G.D.  
March 31, 2005

Gregory M. Desire  
Examiner  
Art Unit 2625

  
**BHAVESH M. MEHTA**  
**SUPERVISORY PATENT EXAMINER**  
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